

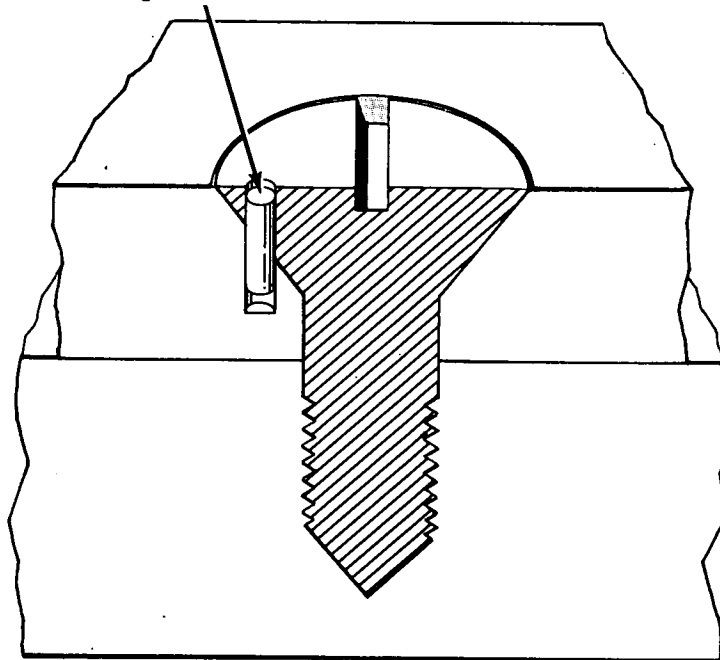
# NASA TECH BRIEF



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## Countersunk Headscrew Retainer

Spring Pin Installed  
Through Screw Head



Countersunk Head Screw Retainer

### The problem:

Retaining a screw (under dynamic conditions) when the use of self-locking devices is not feasible and lock wiring provisions cannot be used because a flat surface is desired.

### The solution:

A pin locking technique for flush fasteners.

### How it's done:

In an environment where countersunk head screws cannot be held by either self-locking inserts or lock wiring, a practical solution is the use of a spring pin. A hole is drilled through one side of the screw head and into the component and the spring pin is inserted to form a flat surface. A spring pin installed in this fashion performs adequately under dynamic conditions.

(continued overleaf)

**Notes:**

1. The technique described in this NASA Tech Brief should be of interest to fastener manufacturers and personnel working in the machinery, aircraft, automotive, and aerospace industries. The concept is new in that it describes a method of retaining a countersunk head screw in a tapped blind hole while maintaining a flat surface.
2. No further documentation is available. Inquiries may be directed to:  
Technology Utilization Officer  
Marshall Space Flight Center  
Huntsville, Alabama 35812  
Reference: B69-10282

**Patent status:**

No patent action is contemplated by NASA.

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